

What is claimed is:

1. A heating apparatus which has an electrostatic adsorption function and which comprises at least a supporting substrate, an electrode for electrostatic adsorption formed on a surface of one side of the supporting substrate, a heating layer formed on a surface of the other side of the supporting substrate, and an insulating layer formed so that it may cover the electrode for electrostatic adsorption and the heating layer wherein a volume resistivity of the insulating layer is varied in a plane.

2. The heating apparatus which has an electrostatic adsorption function according to Claim 1 wherein the variation of the volume resistivity of the insulating layer is a variation in a shape of a concentric circle.

3. The heating apparatus which has an electrostatic adsorption function according to Claim 1 wherein the volume resistivity is varied in the range of 10^8 to $10^{18} \Omega \cdot \text{cm}$.

4. The heating apparatus which has an electrostatic adsorption function according to Claim 2 wherein the volume resistivity is varied in the range of 10^8 to $10^{18} \Omega \cdot \text{cm}$.

5. The heating apparatus which has an electrostatic adsorption function according to Claim 1 wherein the insulating layer consists of silicon nitride, boron nitride, a mixture of boron nitride and aluminium nitride, alumina, or aluminium nitride, and the insulating layer contains impurity in the range of 0.001 % to 20 %.

6. The heating apparatus which has an electrostatic adsorption function according to Claim 2 wherein the insulating layer consists of silicon nitride, boron nitride, a mixture of boron nitride and aluminium nitride, alumina, or aluminium nitride, and the insulating layer contains impurity in the range of 0.001 % to 20 %.

7. The heating apparatus which has an electrostatic adsorption function according to Claim 5 wherein the boron nitride is pyrolytic boron nitride.

8. The heating apparatus which has an electrostatic adsorption function according to Claim 6 wherein the boron nitride is pyrolytic boron nitride.

9. The heating apparatus which has an electrostatic adsorption function according to Claim 5 wherein the impurity contained in the insulating layer is at least one kind of impurity selected from the group consisting of

silicon, carbon, boron, germanium, titanium, aluminium and nitrides, oxides and borides thereof.

10. The heating apparatus which has an electrostatic adsorption function according to Claim 6 wherein the impurity contained in the insulating layer is at least one kind of impurity selected from the group consisting of silicon, carbon, boron, germanium, titanium, aluminium and nitrides, oxides and borides thereof.

11. The heating apparatus which has an electrostatic adsorption function according to Claim 7 wherein the impurity contained in the insulating layer is at least one kind of impurity selected from the group consisting of silicon, carbon, boron, germanium, titanium, aluminium and nitrides, oxides and borides thereof.

12. The heating apparatus which has an electrostatic adsorption function according to Claim 8 wherein the impurity contained in the insulating layer is at least one kind of impurity selected from the group consisting of silicon, carbon, boron, germanium, titanium, aluminium and nitrides, oxides and borides thereof.

13. The heating apparatus which has an electrostatic adsorption function according to Claim 1 wherein the supporting substrate consists of any one of a silicon

nitride sint red body, a boron nitride sintered body, a mixed sintered body of boron nitride and aluminium nitride, an alumina sintered body, an aluminium nitride sintered body, and pyrolytic boron nitride coated graphite.

14. The heating apparatus which has an electrostatic adsorption function according to Claim 2 wherein the supporting substrate consists of any one of a silicon nitride sintered body, a boron nitride sintered body, a mixed sintered body of boron nitride and aluminium nitride, an alumina sintered body, an aluminium nitride sintered body, and pyrolytic boron nitride coated graphite.

15. The heating apparatus which has an electrostatic adsorption function according to Claim 1 wherein the electrode for electrostatic adsorption and/or the heating layer are formed by screen printing or chemical vapor deposition.

16. The heating apparatus which has an electrostatic adsorption function according to Claim 2 wherein the electrode for electrostatic adsorption and/or the heating layer are formed by screen printing or chemical vapor deposition.

17. The heating apparatus which has an electrostatic adsorption function according to Claim 1 wherein the

electrode for electrostatic adsorption and/or the heating layer consist of any one of gold, a platinum group, silver, a mixture of gold or a platinum group and silver, titanium, tungsten, tantalum, molybdenum, pyrolytic graphite and pyrolytic graphite containing boron and/or boron carbide.

18. The heating apparatus which has an electrostatic adsorption function according to Claim 2 wherein the electrode for electrostatic adsorption and/or the heating layer consist of any one of gold, a platinum group, silver, a mixture of gold or a platinum group and silver, titanium, tungsten, tantalum, molybdenum, pyrolytic graphite and pyrolytic graphite containing boron and/or boron carbide.

19. A method for producing a heating apparatus which has an electrostatic adsorption function by forming at least an electrode for electrostatic adsorption and a heating layer on a supporting substrate and then forming an insulating layer so that it may cover the electrode for electrostatic adsorption and the heating layer wherein the insulating layer is formed so that a volume resistivity may be varied in the insulating layer.